## STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

MCF Communications bg, Inc. and Omnipoint Communications, Inc. application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 12 Carpenter Road, Bolton, Connecticut.

Docket No. 323

January 17, 2007

## SPRINT NEXTEL CORPORATION'S RESPONSES TO INTERROGATORIES

1. Discuss Sprint Nextel's need for the proposed facility. Specifically, what level of coverage does Sprint Nextel currently have in this area, and in what ways would the proposed facility improve the existing level of service?

Sprint's iDEN network customers are currently experiencing poor service along sections of Route 384, Route 6 and Route 44 and the surrounding areas. This poor level of service is due to a combination of weak signal strength in the area and interference from nearby site CT0717 (130 Vernon Road, Bolton) located to the northeast of the proposed site.

The proposed site will offload traffic from the Vernon Road site. Because the Vernon Road site is currently so overloaded, it creates a great deal of interference for a number of sites around the greater northeast Hartford area. Therefore, with the addition of this site to Sprint's iDEN network, Sprint will not only be providing better coverage in the Bolton area, Sprint will also reduce the amount of interference to all its iDEN sites in the greater northeastern Hartford area.

2. What is the operating frequency and minimum signal level threshold that Sprint Nextel is planning to use in this area?

Sprint's iDEN network transmit frequencies for the proposed site are 851-869 MHz and 935 to 940 MHz. The minimum signal level threshold for use in this area is -81 dBm.

3. Provide antenna specifications including type, make, size, model, number of channels, and maximum power output. Indicate the proposed antenna height, number of antennas and antenna mounting configuration planned for the site.

Antenna type - Panel

Sectors - 3

Antenna Model - 844G65VTZASX

Antennas per sector - 4

Weight - 16 lb

ERP per channel - 50 watts

Dimensions - 48.5 x 12.5 x 8.5 inches

Channels - 6

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4. Within what frequencies does Sprint Nextel intend to operate at the proposed site?

Sprint intends to operate its iDEN network at the following frequency bands:

Transmit - 851-869 and 935-940 MHz

Receive - 806-824 and 896-901 MHz

5. Provide a worst case power density analysis for radio frequency emissions for Sprint Nextel's antennas at the proposed height on the tower. Please use the following equation. (1.64)(.64)(# of channels)(power in watts/channel)(1000 mW/W)

3.14 [(distance from antenna to ground in feet)(30.49 cm/foot)]<sup>2</sup>

Attached.

6. Would Sprint Nextel require an emergency generator at the proposed site?

Sprint does not have any plans to install a permanent emergency generator at the site. If a power outage exceeds 24 hours, Sprint may locate a diesel powered electrical generator at the Facility on a temporary basis.

7. Provide information on the number of dropped calls Sprint Nextel is experiencing in this area.

Sprint is currently experiencing over 100 dropped calls per day on their iDEN network in this area.

8. At what signal level would Sprint Nextel drop a call?

The signal level at which Sprint would drop a call on its iDEN network varies with factors such as interference levels, handset quality and vehicle type. A signal level of -81 dBm has been established as the corporate standard to provide reliable coverage.

9. Provide composite radio frequency propagation plots for Sprint Nextel's existing coverage in the area of the proposed site, at Sprint Nextel's minimum signal level threshold and at a scale of 1:50,000. Please provide separate plots for cellular and PCS frequencies.

Attached.

10. Provide composite radio frequency propagation plots showing existing coverage and coverage from the proposed site at the height at which Sprint Nextel would locate antennas, at Sprint Nextel's minimum signal level threshold and at a scale of 1:50,000. Please provide separate plots for cellular and PCS frequencies.

Attached.

11. Provide composite propagation plots showing existing coverage and coverage from the proposed site at ten feet below the height at which Sprint Nextel would locate antennas, at Sprint Nextel's minimum signal level threshold and at a scale of 1:50,000. Please provide separate plots for cellular and PCS frequencies.

Attached.

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Respectfully submitted, Sprint Nextel Corporation

By:

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## **Certificate of Service**

I hereby certify that on January 17, 2007, a copy of Sprint Nextel Corporation's Witness

& Exhibit List was sent via email and first class mail to:

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Transmitters: Frequency CT Standard Number of ERP (W) Tx antennas calculated at base of tower density base of tower density calculated at sprint Nextel 851 0.5673 12 100 120 0.0302 5.3163%	Sprint Nextel Directional Antennas ESMR - 851 MHz 120	as ESMR - 851 MHz	120'					
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in MHz mW/ cm² Channels per channel AGL (ft.) base of tower  851 0.5673 12 100 120 0.0302	Transmitters:	Frequency	CT Standard	Number of	ERP (W)	Tx antennas	calculated at	
851 0.5673 12 100 120 0.0302		in MHz	mW/ cm <sup>2</sup>	Channels	per channel	AGL (ft.)	base of tower	% of CT Standard
	nt Nextel	851	0.5673	12	100	120	0.0302	5.3163%
F 24620/	Total % of CT Standard							F 34630/





